

Title (en)
METHODS AND DEVICE TO REDUCE SLOSH ENERGY ABSORPTION EFFECTS BY REDUCING BLOOD FLOW FROM THE CRANIUM

Title (de)
VERFAHREN UND VORRICHTUNG ZUR REDUZIERUNG VON SLOSH-ENERGIEABSORPTIONSEFFEKTEN DURCH REDUZIERUNG DES BLUTFLUSSES AUS DEM SCHÄDEL

Title (fr)
PROCÉDÉS ET DISPOSITIF POUR RÉDUIRE LES EFFETS D'ABSORPTION D'ÉNERGIE DE BALLOTTEMENT PAR RÉDUCTION DU FLUX SANGUIN PROVENANT DU CRÂNE

Publication
EP 4179904 A1 20230517 (EN)

Application
EP 22211562 A 20111011

Priority

- US 201161518117 P 20110429
- EP 17208282 A 20111011
- EP 11834865 A 20111011
- US 201113931415 A 20110201
- US 93141511 A 20110201
- US 80767710 A 20100910
- US 2011055783 W 20111011

Abstract (en)
Venous compression in the neck reduced the extent of axonal injury in a standardized mild TBI model in rodents. The mechanism restricted brain venous drainage and increased the central nervous system blood volume and pressure, thus shifting intracranial physiology to the steep part of the volume-compliance curve. The lack of compliance inside the confines of the skull and spinal canal prevented slosh energy absorption and the resultant axonal injury by causing them to approach a more elastic collision when the skull was struck during the weight drop method. A first embodiment can be a device comprising a means to reduce SLOSH energy absorption in a fluid containing organism by reducing the flow of one or more outflow vessels of the cranium by compressing said vessels.

IPC 8 full level
A41D 13/05 (2006.01); **A61B 17/135** (2006.01); **A63B 71/10** (2006.01)

CPC (source: EP)
A41D 13/0512 (2013.01); **A61B 17/1325** (2013.01); **A61B 17/135** (2013.01); **A63B 71/081** (2013.01); **A63B 71/10** (2013.01); **A63B 71/1291** (2013.01); **A63B 2225/62** (2013.01)

Citation (applicant)

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Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
EP 4179904 A1 20230517

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EP 22211562 A 20111011